

**COLORADO DEPARTMENT OF TRANSPORTATION
JOB MIX FORMULA**

Project no.

Location

District

Field sheet no.

Date

From project no.

This Job Mix Formula defines the specified gradation, asphalt cement content and admixture dosage for the grading and project shown.

Contractor

Pit

Grading

Item

☐ Top layer ☐ Bottom layer

Gradation (% passing)

Remarks:

3/4

1/2

3/8

4

8

50

200

% AC

Source and grade of AC

% Additive

Source of additive

Distribution:

Materials Engineer
Staff Materials
Resident Engineer (2)
Contractor

Signed (Project Engineer)

Date

Signed (District Materials Engineer)

Date

Signed (Contractors Representative)

Date

INSTRUCTIONS FOR CDOT FORM NO. 43

PURPOSE: To authorize change in Job-Mix Formula from that shown in the Contract Special Provisions or to make a change during construction from that previously authorized by CDOT Form 43.

AUTHORITY FOR THIS REPORT: Subsection 401.02 of the Standard Specifications authorizes the Engineer to modify in writing the Job-Mix Formula specified in the Contract Special Provisions and, when necessary, to establish a new Job-Mix Formula.

METHOD OF PREPARATION:

(a) Obtain a sample of job-produced aggregate and submit to the Central Laboratory for mix design. (Exception: Established commercial sources need have only one mix design or job-mix formula established during any calendar year.) Three weeks are required to complete laboratory tests.

(b) Prepare CDOT Form 157 transmitting sample of job-produced aggregate to Central Laboratory and list thereon the following data:

1. Asphalt grade and source (refinery).
2. Mineral filler, type, percent and source.
3. Asphalt additive, type and percent.
4. Proposed Job-Mix Formula based on field information.

(c) The proposed Job-Mix Formula will be limited to the sieves for the project, and shall have the concurrence of the Region Materials Engineer.

(d) Upon completion of the mix design, the Central Laboratory will prepare the Job-Mix Formula and make normal distribution.

(e) The Project Engineer shall, upon receipt of the mix design, review the test results thereon with the Region Materials Engineer. Any change contemplated from the Job-Mix Formula shown with the plans shall be discussed with the Central Laboratory and documented with name and date on the CDOT Form 43. The Form shall then be completed and the signature of the Region Materials Engineer obtained thereon. Then it shall be delivered to the Contractor's authorized representative whose signature documents that the Contractor received the modification order.

(f) If after the initial Form 43 has been distributed and the construction of the pavement has begun, there develops a sound reason why the Project Engineer should establish a new Job-Mix Formula, such shall be done by filling out another Form 43. Consultation will be made with all CDOT personnel concerned before making this second change. An additional sample of aggregate may or may not need to be sent to the Central Laboratory, depending upon the changes required and the circumstances. A brief statement of the reason for the change shall be given on the Form and this second change shall be listed as Modification No. 2.

(g) Even though no change in the Job-Mix Formula from that shown in the Special Provisions is desired, the Form shall be made out in its entirety and distributed as a matter of documentation before the Contractor begins the plant-mix operations. Note in the space at the top of the Form that there is no change over that shown in the Special Provisions.

(h) Please note that "Temperature of Mixture when emptied from the Mixer" comes from a table published in Chapter 400 of the CDOT Materials Manual that gives the proper mixing temperature range as required (Specification 401.15) for each grade.

(i) The Specific Gravity of Laboratory Specimen is that referred to under Specification 401.17 and as shown on the construction mix design. If a value other than this is to be used, the Central Laboratory should be consulted first.

ALLOW ADEQUATE TIME TO COMPLY WITH THESE INSTRUCTIONS

Project No. _____

Subacct No. _____

Location _____

Region _____

Field Sheet No. _____

from Project No. _____

Compaction (EPS)

Remarks:

Called _____ Date _____
Staff Materials Representative

Signed _____ Date _____
Project Engineer

Signed _____ Date _____
Region Materials Engineer

Signed _____ Date _____
Contractors Representative